

Influenza Surveillance in Ireland – Weekly Report

Influenza Week 13 2022 (28th March – 3rd April 2022)



Intensive Care Society of Ireland



Summary

Most indicators of influenza activity show early signs of declining activity in Ireland during week 13 2022, with community and hospitalised influenza cases decreasing. Influenza A(H3) viruses are the predominant influenza viruses circulating in Ireland. It is recommended that antivirals be used for the treatment and prophylaxis of influenza in clinical at-risk groups and in those with severe influenza disease.

- Influenza-like illness (ILI): The sentinel GP influenza-like illness (ILI) consultation rate decreased to 26.6/100,000 population during week 13 2022, compared to the updated rate of 34.8/100,000 during week 12 2022. Sentinel GP ILI consultation rates during week 13 2022 were above the Irish baseline threshold (18.1/100,000 population). Sentinel GP ILI consultations are currently reflecting the co-circulation of influenza, SARS-CoV-2 and other respiratory viruses.
- Sentinel GP ILI consultation rates were above age specific baseline thresholds for those aged 15-64 years and those aged ≥65 years but remained below baseline thresholds in the <15years age group during week 13 2022.
- GP Out of Hours: The proportion of self-reported 'flu' calls to GP Out-of-Hours services remained below baseline levels, at 0.7% (95/12,855) during week 13 2022, compared to 0.9% (121/13,522) during week 12 2022. The proportion of cough calls decreased to 32.7% (4,209/12,855) during week 13 2022, compared to 35.2% (4,762/13,522) during week 12 2022.
- National Virus Reference Laboratory (NVRL): The influenza positivity rate reported by the NVRL for both sentinel GP ILI and non-sentinel respiratory specimens tested was 4.9% (10/206) during week 13 2022 and 11.3% (27/240) during week 12 2022, a lag time with testing and reporting is noted. Of the 37 influenza positive detections reported from the NVRL during weeks 12 and 13 2022, all were A(H3). For the 2021/2022 season (weeks 40 2021 – 13 2022), of 1,522 sentinel GP ILI specimens and 5,262 non-sentinel respiratory specimens tested, 278 (4.1%) were positive for influenza: 268 A(H3), 3 A(H1)pdm09, 5 A (not subtyped) and 2 B.
- No RSV positive samples were detected from sentinel GP ILI or non-sentinel sources in weeks 12 and 13 2022. Rhinovirus/enterovirus, human metapneumovirus and other respiratory viruses continue to circulate.
- Influenza and RSV notifications: 206 laboratory confirmed influenza cases - 27 A(H3) and 179 A (not subtyped) were notified during week 13 2022. During weeks 40 2021-13 2022, 1,655 laboratory confirmed influenza cases were notified: 1,648 influenza A (271 A(H3), 4 A(H1)pdm09 and 1373 A not subtyped), 6 influenza B and 1 influenza type not reported. Three RSV cases were notified during week 13 2022.
- Hospitalisations: 48 laboratory confirmed influenza hospitalised cases, seven A(H3) and 41 A (not subtyped), were notified during week 13 2022. During weeks 40 2021 – 13 2022, 358 laboratory confirmed influenza hospitalised cases were notified: 81 A(H3), 275 influenza A (not subtyped) and two influenza B cases.
- Critical care admissions: No laboratory confirmed influenza cases were admitted to critical care units and reported to HPSC during week 13 2022. For the 2021/2022 season, nine laboratory confirmed influenza A cases were admitted to critical care units: 4 A (H3) and 5 A (not subtyped).
- Mortality: No deaths in notified influenza cases were notified to HPSC during week 13 2022. No excess all-cause mortality was reported during week 12 2022; data reported with one-week time lag.
- Outbreaks: One laboratory confirmed influenza A (not subtyped) and one acute respiratory infection (SARS-CoV-2 negative) outbreak, both in nursing homes were notified to HPSC in week 13 2022.
- International: Widespread influenza activity was reported from several countries in the European Region during week 12 2022. Different levels of influenza activity and intensity were observed between countries, with a predominance of influenza A(H3).

1. GP sentinel surveillance system - Clinical Data

- During week 13 2022, 74 influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 26.6/100,000 population, a decrease compared to the updated rate of 34.8/100,00 during week 12 2022 (Figure 1). The sentinel GP ILI consultation rate is above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population).
- Sentinel GP age specific ILI consultation rates remained below age specific baseline levels for those aged <15 years (8.5/100,000) and above baseline levels in those aged 15-64 years (26.4/100,000) and aged ≥65 years (56.5/100,000). Sentinel GP ILI consultation rates increased in those aged ≥65 years during week 13 2022, compared to the previous week. Age specific ILI consultation rates decreased in all other age groups during week 13 2022, compared to week 12 2022, Figure 2 & Table 1.
- The Irish sentinel baseline ILI threshold for the 2021/2022 influenza season is 18.1/100,000 population. ILI rates above this baseline threshold combined with sentinel GP influenza positivity >10% indicate the likelihood that influenza is circulating in the community. The Moving Epidemic Method (MEM) is used to calculate thresholds for GP ILI consultations in a standardised approach across Europe. The baseline ILI threshold (18.1/100,000), medium (57.5/100,000) and high (86.5/100,000) intensity ILI thresholds are shown in Figure 1. Age specific MEM threshold levels are shown in Table 1.

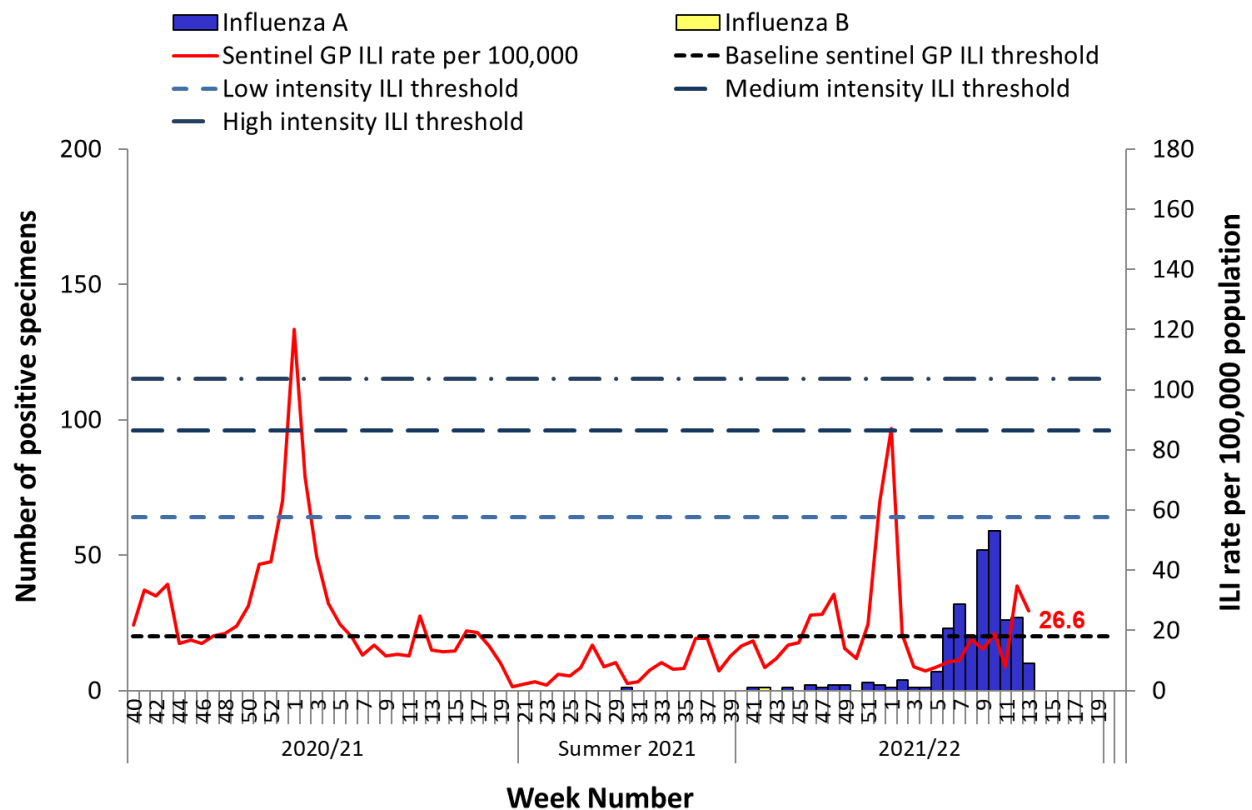


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. The current week sentinel GP ILI consultation rate per 100,000 population is highlighted in red text. *Source: ICGP and NVRL*

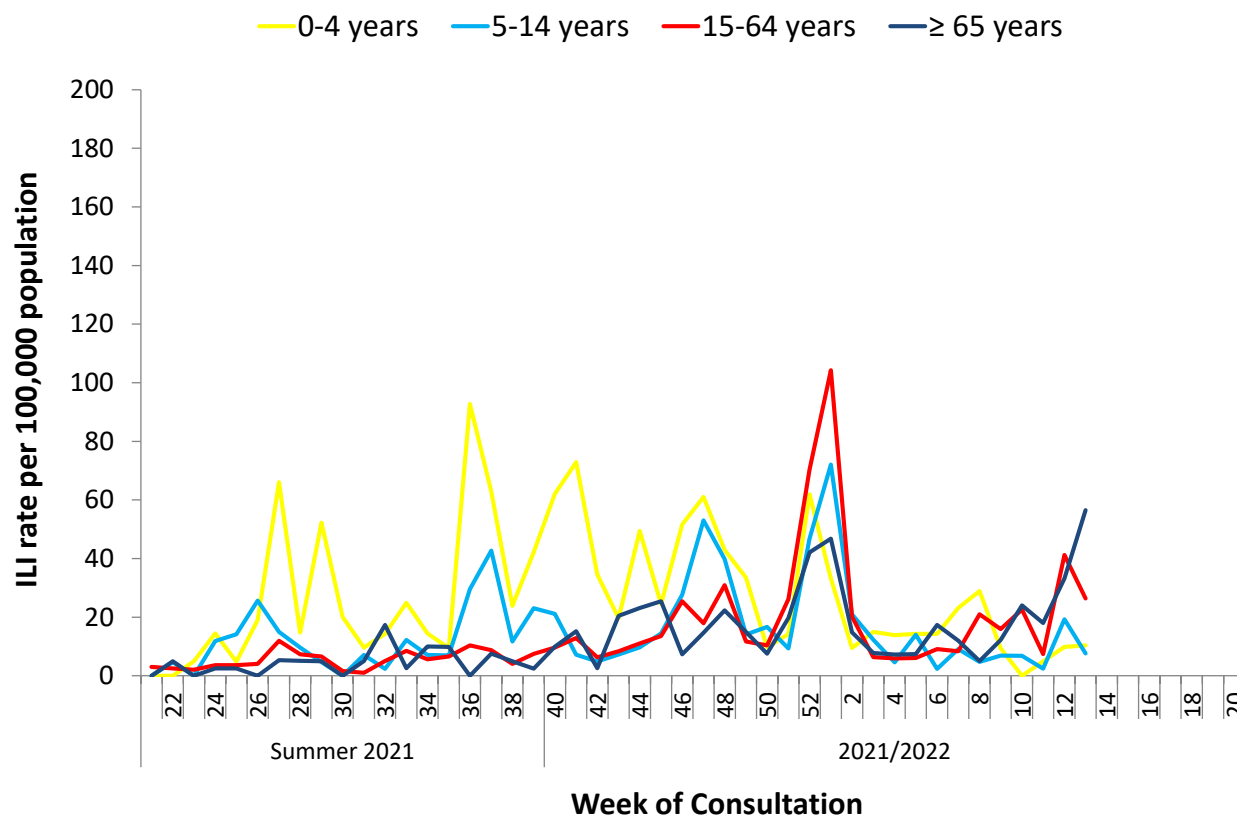


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2021 and the 2021/2022 influenza season to date. *Source: ICGP.*

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week for the 2021/2022 season, colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

Sentinel GP ILI Threshold Levels					Below Baseline					Low			Moderate				High			Extraordinary						
Age group (years)	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13
All Ages	14.9	16.6	7.6	10.6	15.1	16.0	25.1	25.5	31.9	14.0	10.8	22.1	62.6	87.1	18.8	8.0	6.4	7.9	9.6	10.0	17.1	13.7	19.0	7.9	34.8	26.6
<15 yrs	34.6	28.8	14.6	11.3	22.8	17.7	35.5	55.6	40.8	20.5	14.4	10.9	51.7	59.3	17.2	13.2	7.6	14.1	6.3	13.7	12.7	7.7	4.6	3.3	16.2	8.5
15-64 yrs	9.6	12.9	6.3	8.4	11.0	13.5	25.4	18.0	30.9	11.7	10.3	26.2	70.4	104.3	20.1	6.4	5.9	6.1	9.1	8.4	21.0	16.0	22.6	7.4	41.2	26.4
≥65 yrs	9.9	15.2	2.6	20.4	23.1	25.4	7.3	14.6	22.3	14.9	7.6	19.7	42.1	46.8	14.8	7.8	7.2	7.4	17.4	12.0	5.0	12.2	24.0	18.0	33.2	56.5
Reporting practices (N=61)	57	56	54	55	54	55	57	57	55	54	55	56	55	56	56	55	57	55	55	57	55	56	57	55	53	50

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2021/2022 influenza season refer to sentinel GP ILI and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus types 1-4 (PIV-1-4), human metapneumovirus (hMPV) and rhino/enteroviruses by the National Virus Reference Laboratory (NVRL) (Tables 2 & 3, Figure 3). In Ireland, virological surveillance for influenza, RSV and other respiratory viruses (ORVs) undertaken by the Irish sentinel GP network is integrated into current testing structures for COVID-19 primary care referrals. Non-sentinel respiratory specimens relate to specimens referred to the NVRL (other than sentinel GP specimens) and may include more than one specimen from each case.

During the COVID-19 pandemic, there may be a lag time receiving data for the current week from the NVRL and laboratories under the clinical governance of the NVRL, caution is advised therefore interpreting the most recent week's data. These data are continuously updated.

- During week 13 2022, 5.1% (4/78) sentinel GP ILI and 4.7% (6/128) non-sentinel respiratory specimens tested and reported by the NVRL were positive for influenza. The overall influenza positivity for sentinel GP ILI and non-sentinel respiratory specimens during week 13 2022 was 4.9% (10/206).
- During week 12 2022, 8.7% (8/92) sentinel GP ILI and 12.8% (19/148) non-sentinel respiratory specimens tested and reported by the NVRL were positive for influenza. The overall influenza positivity for sentinel GP ILI and non-sentinel respiratory specimens during week 12 2022 was 11.3% (27/240).
- During weeks 12 and 13 2022, 37 influenza A positive specimens were detected by the NVRL, all were subtyped as Influenza A(H3).
- For the 2021/2022 season (weeks 40 2021 - 13 2022), of 1,522 sentinel GP ILI and 5,262 non-sentinel respiratory specimens tested, 278 were positive for influenza: 268 A(H3), 3 A(H1)pdm09, 5 A (not subtyped) and 2 B (one B/Victoria and one B/lineage not specified), Figures 3 & 4.
- No RSV positive samples were detected from sentinel GP ILI and non-sentinel respiratory specimens tested and reported by the NVRL during weeks 12 and 13 2022. Table 3; Figure 5.
- Rhinovirus/enterovirus, human metapneumovirus and other respiratory virus (ORV) positive detections continue to be detected (Figure 6, Tables 4 and 5).
- The NVRL has genetically characterised and reported data on 26 positive influenza samples in Ireland to date this season. Twenty-five positive samples were genetically characterised as A(H3) of those, 24/25 A(H3) positive samples clustered in a genetic group that is represented by the A/Bangladesh/4005/2020 virus, the predominant subgroup circulating globally. A/Bangladesh viruses are antigenically diverse to the A(H3)/Cambodia/e0826360/2020 vaccine strain which was chosen for the northern hemisphere 2021/2022 vaccine. One positive sample fell into the 3C.2a1b.1a subgroup represented by the A/Denmark/3264/2019 virus, which has been identified less frequently this season. One influenza A(H1)pdm09 virus sample was genetically characterised and belonged to the genetic subgroup, 6B.1A.5a.2, clustering in a subgroup that is represented by the 2021/2022 northern hemisphere vaccine virus strain (A/Victoria/2570/2019 (H1N1)pdm09-like virus).

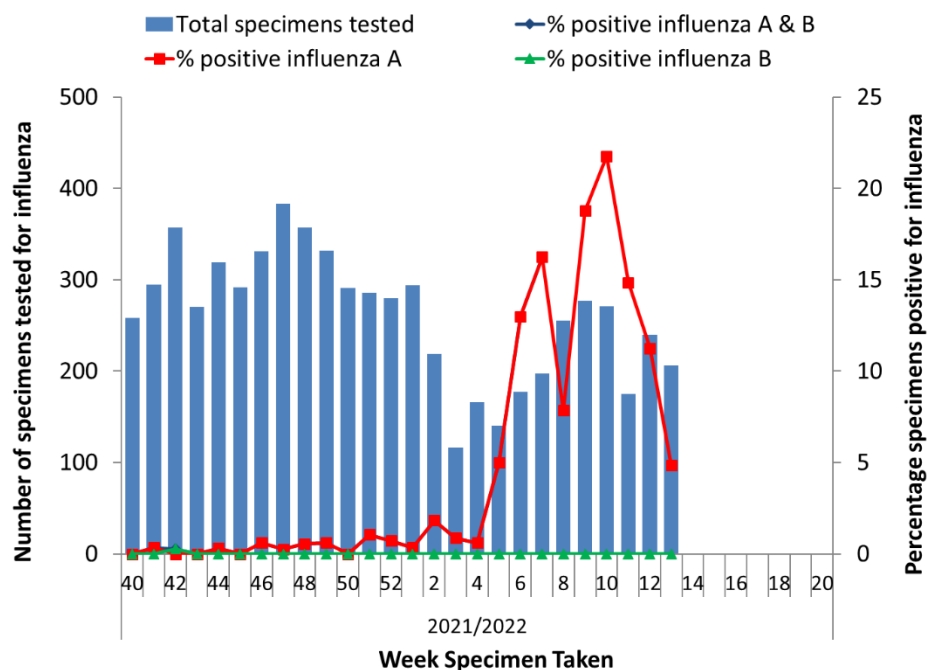


Figure 3: Number of specimens (from sentinel GP ILI and non-sentinel respiratory sources) tested by the NVRL for influenza and percentage influenza positive by week for the 2021/2022 influenza season. *Source: NVRL.*

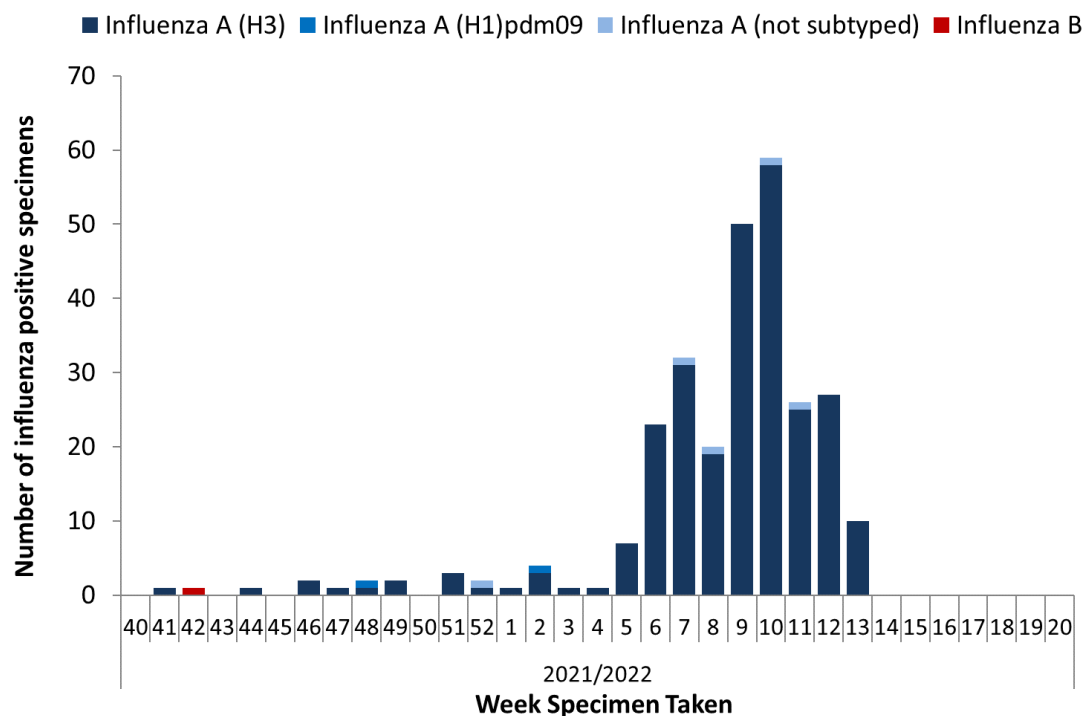


Figure 4: Number of positive influenza specimens (from sentinel GP ILI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week for the 2021/2022 influenza season. *Source: NVRL.*

Table 2: Number of sentinel GP ILI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for week 12 and week 13 2022 and the 2021/2022 season (weeks 40 2021- 13 2022). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number influenza positive	% Influenza positive	Influenza A				Influenza B			
					A(H1)pdm09	A(H3)	A (not subtyped)	Total influenza A	B (unspecified)	B Victoria lineage	B Yamagata lineage	Total influenza B
13 2022	Sentinel GP ILI referral	78	4	5.1	0	4	0	4	0	0	0	0
	Non-sentinel	128	6	4.7	0	6	0	6	0	0	0	0
	Total	206	10	4.9	0	10	0	10	0	0	0	0
12 2022	Sentinel GP ILI referral	92	8	8.7	0	8	0	8	0	0	0	0
	Non-sentinel	148	19	12.8	0	19	0	19	0	0	0	0
	Total	240	27	11.3	0	27	0	27	0	0	0	0
2021/2022	Sentinel GP ILI referral	1522	50	3.3	1	49	0	50	0	0	0	0
	Non-sentinel	5262	228	4.3	2	219	5	226	1	1	0	2
	Total	6784	278	4.1	3	268	5	276	1	1	0	2

Table 3: Number of sentinel GP ILI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for week 12 and week 13 2022 and the 2021/2022 season (weeks 40 2021-13 2022). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 13 2022	Sentinel GP ILI	78	0	0.0	0	0	0
	Non-sentinel	128	0	0.0	0	0	0
	Total	206	0	0.0	0	0	0
Week 12 2022	Sentinel GP ILI	92	0	0.0	0	0	0
	Non-sentinel	148	0	0.0	0	0	0
	Total	240	0	0.0	0	0	0
2021/2022	Sentinel GP ILI	1522	80	5.3	43	37	0
	Non-sentinel	5262	702	13.3	395	306	1
	Total	6784	782	11.5	438	343	1

Table 4: Number of sentinel GP influenza-like illness (ILI) specimens tested by the NVRL for influenza, SARS-CoV-2 and other respiratory viruses (ORVs) and positive results, for weeks 12 and 13 2022 and the 2021/2022 season (weeks 40 2021-13 2022). *Source: NVRL*

Virus	Week 13 2021 (N=78)		Week 12 2021 (N=92)		2021/2022 (N=1522)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	4	5.1	8	8.7	50	3.3
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	80	5.3
Rhino/enterovirus	3	3.8	15	16.3	157	10.3
Adenovirus	0	0.0	0	0.0	2	0.1
Bocavirus	0	0.0	0	0.0	32	2.1
Human metapneumovirus (hMPV)	5	6.4	7	7.6	38	2.5
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 2 (PIV-2)	0	0.0	1	1.1	2	0.1
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	15	1.0
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	20	1.3
SARS-CoV-2	10	12.8	26	28.3	391	25.7

Table 5: Number of non-sentinel respiratory specimens tested by the NVRL for other respiratory viruses (ORVs) and positive results, for week 12 and week 13 2022 and the 2021/2022 season (weeks 40 2021-13 2022). *Source: NVRL*

Virus	Week 13 2021 (N=128)		Week 12 2021 (N=148)		2021/2022 (N=5262)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	6	4.7	19	12.8	228	4.3
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	702	13.3
Rhino/enterovirus	24	18.8	19	12.8	1050	20.0
Adenovirus	2	1.6	1	0.7	84	1.6
Bocavirus	2	1.6	0	0.0	140	2.7
Human metapneumovirus (hMPV)	3	2.3	12	8.1	172	3.3
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	1	0.0
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	101	1.9
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	67	1.3

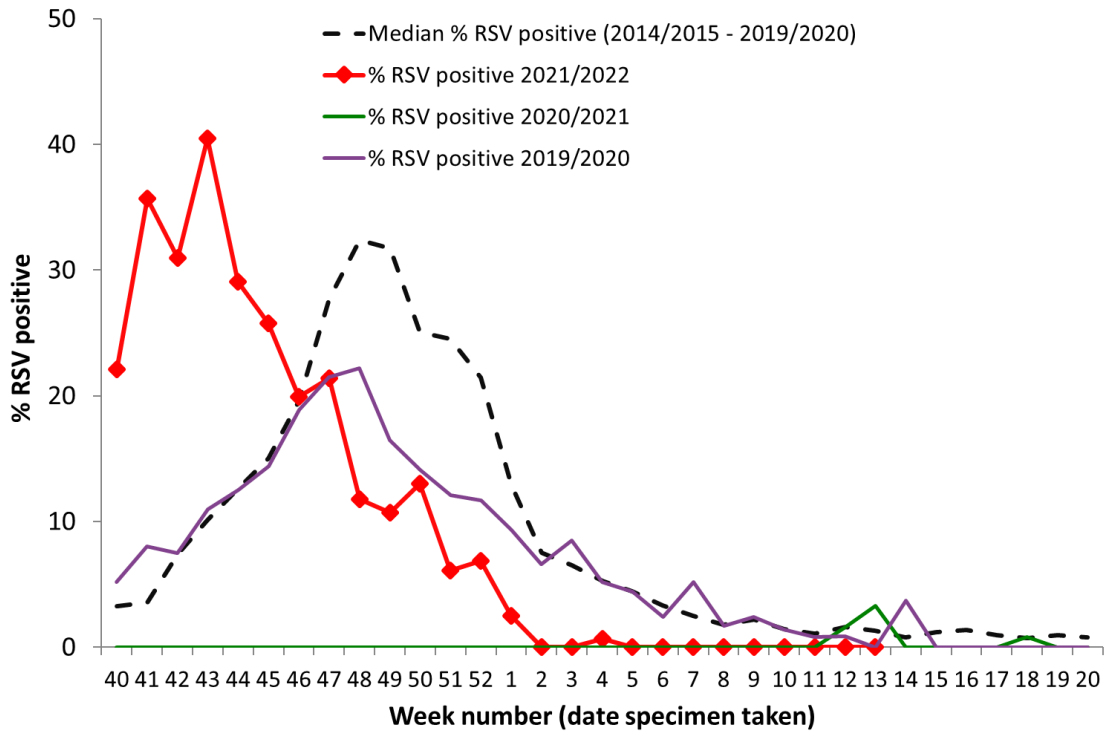


Figure 5: NVRL non-sentinel RSV positivity by week specimen was taken for 2021/2022, 2020/2021 and 2019/2020 seasons compared to median % RSV positivity (2014/2015-2019/2020). *Source: NVRL.*

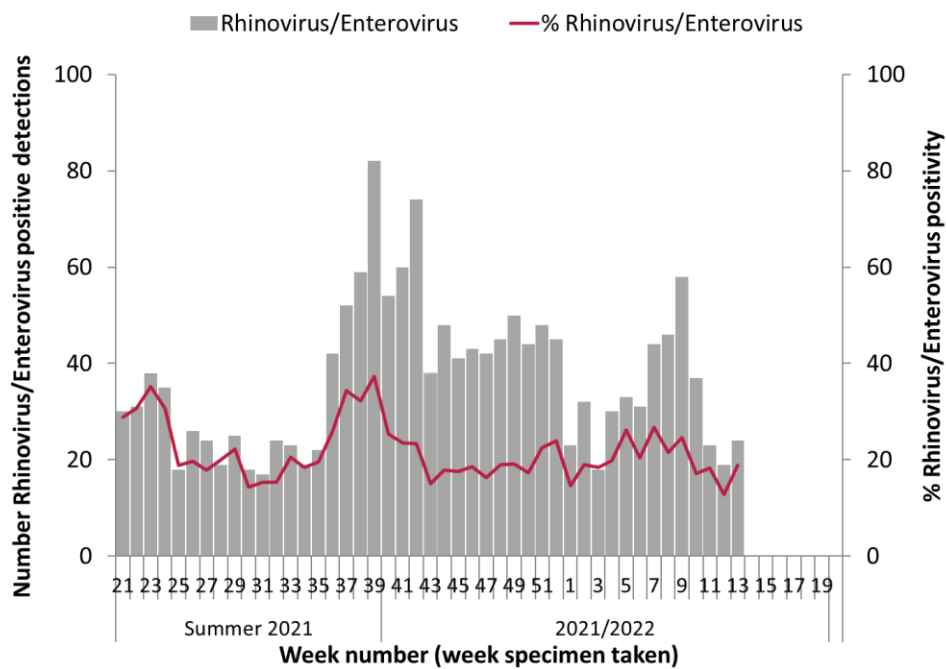


Figure 6: Number (and percentage) of non-sentinel rhinovirus/enterovirus positive detections by week specimen was taken for summer 2021 and 2021/2022 season. *Source: NVRL.*

3. Regional Influenza Activity by HSE-Area

Regional influenza activity levels is based on laboratory confirmed influenza cases and/or outbreaks.

Widespread influenza activity was observed in Ireland during week 13 2022, with laboratory confirmed influenza cases notified in all HSE areas: HSE-East (n=91), HSE-South (n=13), HSE-West (n=21), HSE-Mid West (n=10), HSE-Midlands (n=35), HSE-Northeast (n=13), HSE-Southeast (n=7) and HSE-Northwest (n=16).

4. GP Out-Of-Hours services surveillance

The Department of Public Health in HSE-NE is collating national data on calls to nine of thirteen GP Out-of-Hours (GP OOHs) services in Ireland. Records with clinical symptoms reported as flu/influenza or cough are extracted for analysis. This information may act as an early indicator of circulation of influenza, SARS-CoV-2 or other respiratory viruses. Data are self-reported by callers and are not based on coded diagnoses.

- 4,209 (32.7% of total calls; N=12,855) self-reported cough calls were reported by a network of GP OOHs services during week 13 2022, which is above baseline levels (10.7%) and slight decrease compared to the updated rate of 35.2% (n= 4,762/13,522) during week 12 2022 (Figures 7 & 8).
- 95 (0.7% of total calls; N=12,855) self-reported 'flu' calls were reported by a network of GP OOHs services during week 13 2022, a slight decrease compared to 121 (0.9% of total calls; N=13,522) self-reported 'flu' calls during week 12 2022. The baseline threshold level for self-reported 'flu' calls is 2.3%. (Figure 9).
- Five GP OOH services provided data for week 13 2022.

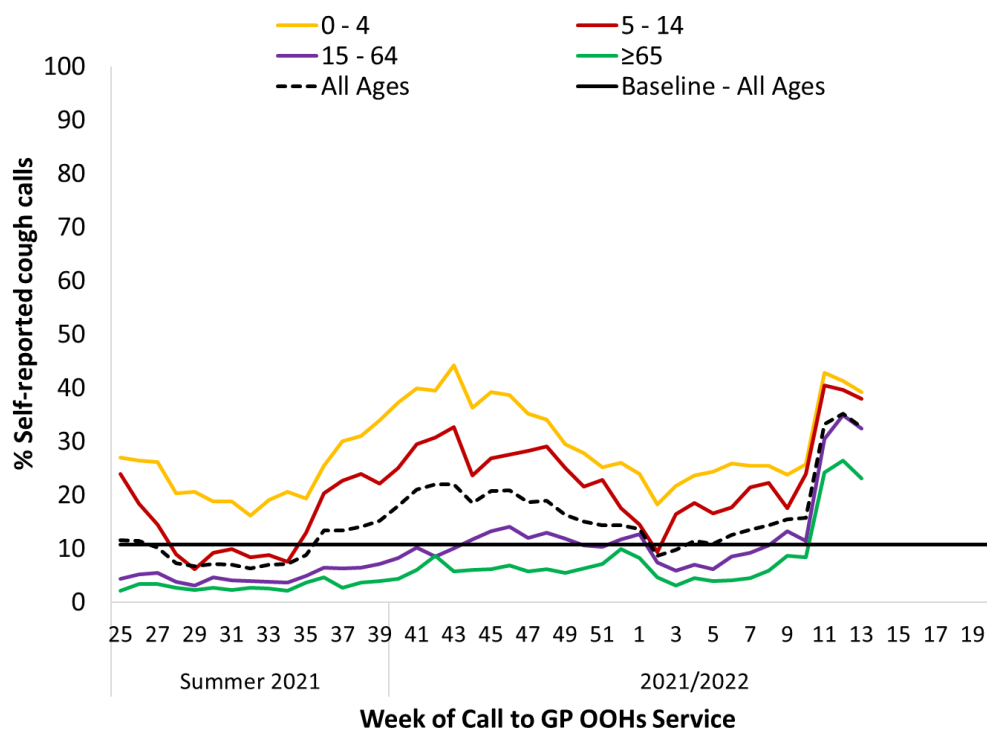


Figure 7: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, 2021-2022. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

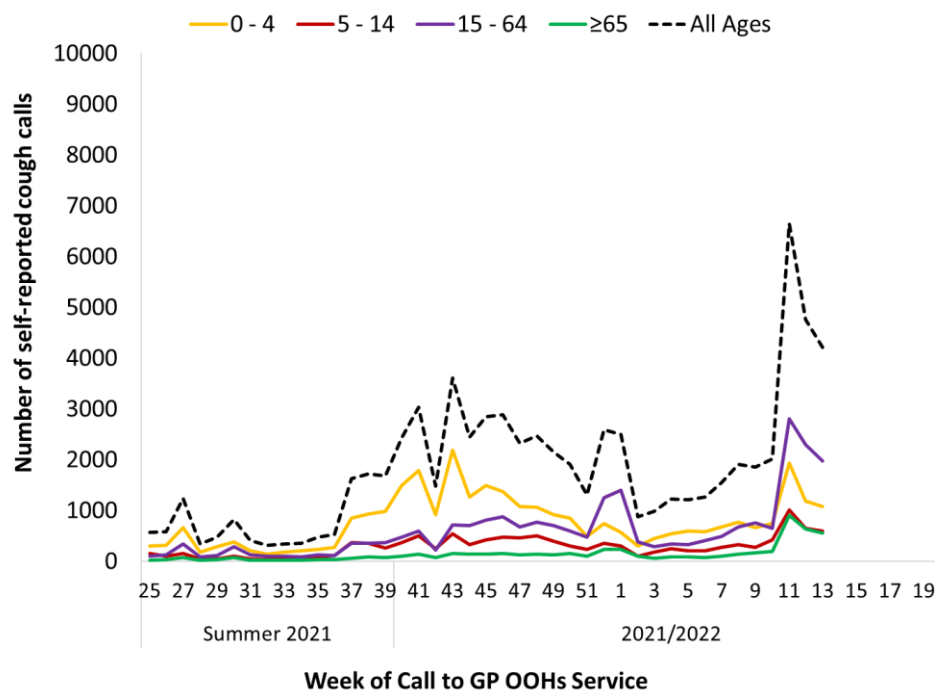


Figure 8: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, 2021-2022. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

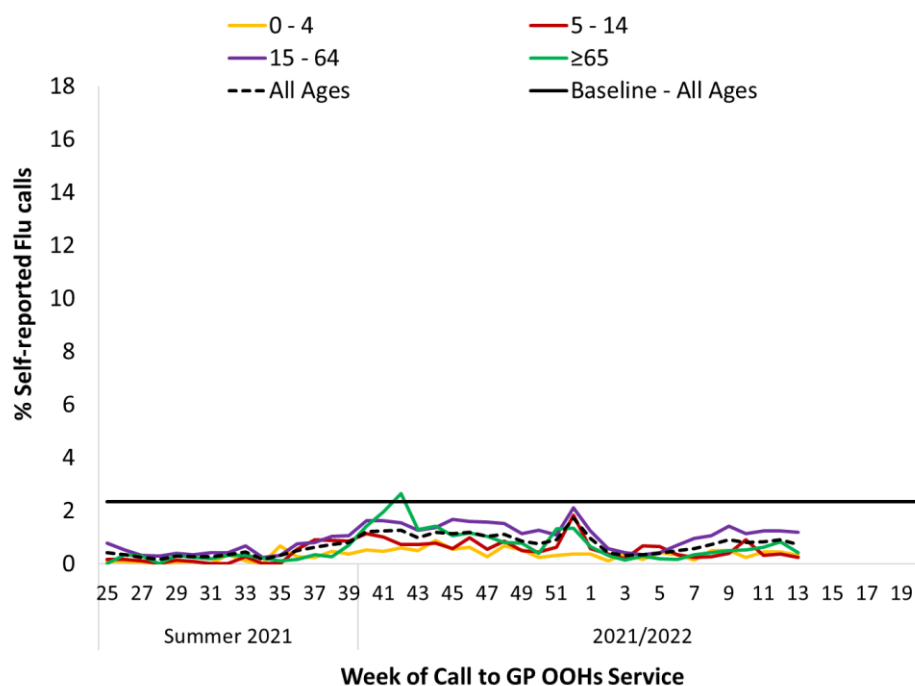


Figure 9: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, 2021-2022. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP*

5. Influenza & RSV notifications

Influenza and RSV cases notifications are reported on Ireland's Computerised Infectious Disease Reporting System (CIDR), including all positive influenza /RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR. Influenza and RSV notifications are reported in the [Weekly Infectious Disease Report for Ireland](#).

- 206 laboratory confirmed influenza cases - 27 A(H3) and 179 A (not subtyped) - were notified to HPSC during week 13 2022 (Figure 10). The median age of confirmed cases notified during week 13 2022 was 33 years (interquartile range 21-65 years). Laboratory confirmed influenza cases were notified from HSE-East (n=91), HSE-South (n=13), HSE=West (n=21), HSE-Midwest (n=10), HSE-Midlands (n=35), HSE-Northeast (n=13), HSE-Southeast (n=7) and HSE-Northwest (n=16) during week 13 2022.
- 1655 laboratory confirmed influenza cases were notified during the 2021/2022 season (weeks 40 2021 – 13 2022): 1,648 influenza A (271 A(H3), 4 A(H1)pdm09 and 1373 A not subtyped), 6 influenza B and 1 with influenza type/subtype not reported. The median age of notified cases for the 2021/2022 season to date is 31 years (interquartile range 21-62 years).
- During week 13 2022, three RSV cases were notified; two of these cases were reported as hospital inpatients (Figures 11 & 12). It should be noted that patient type is not always reported/updated for RSV notified cases; an RSV patient may be admitted to hospital and patient type not updated on CIDR.

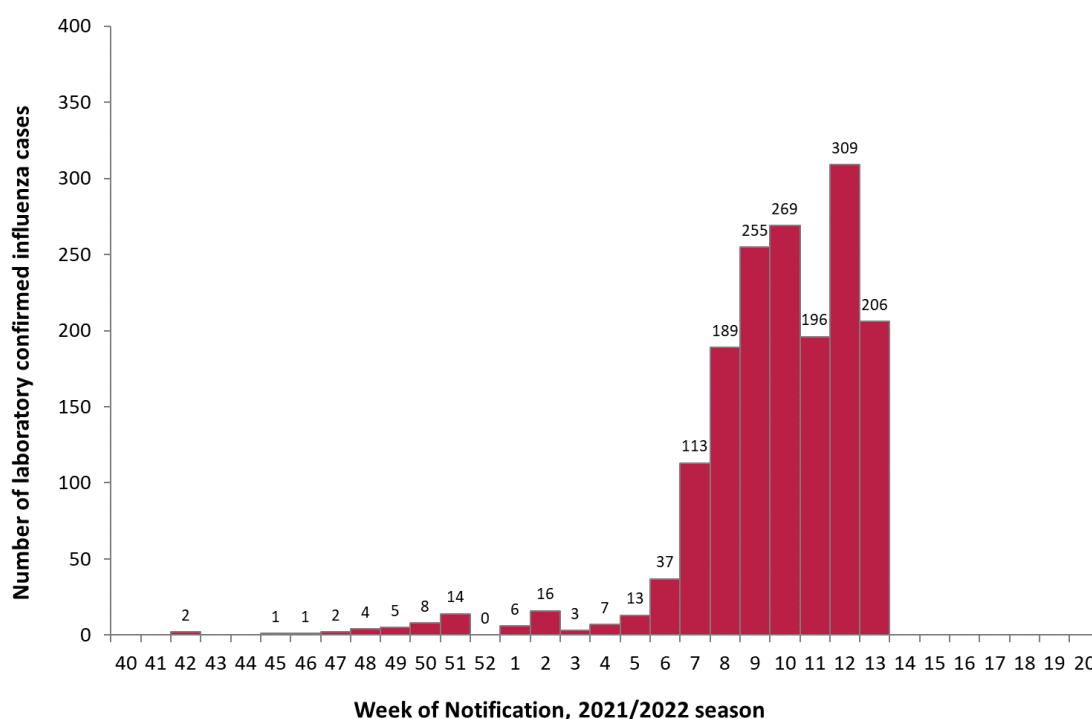


Figure 10: Number of laboratory confirmed influenza cases notified by week of notification, 2021/2022. *Source: Ireland's Computerised Infectious Disease Reporting System*

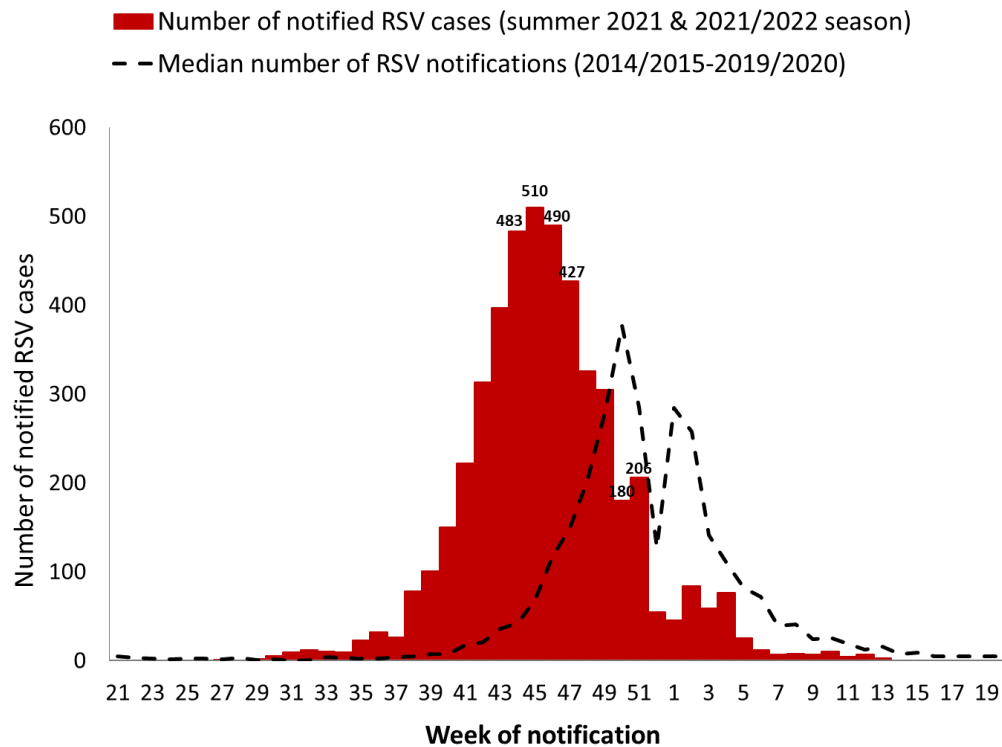


Figure 11: Number of RSV cases notified by week of notification, summer 2021 and 2021/2022, and median number of RSV notifications by week (2014/2015-2019/2020). *Source: Ireland's Computerised Infectious Disease Reporting System.*

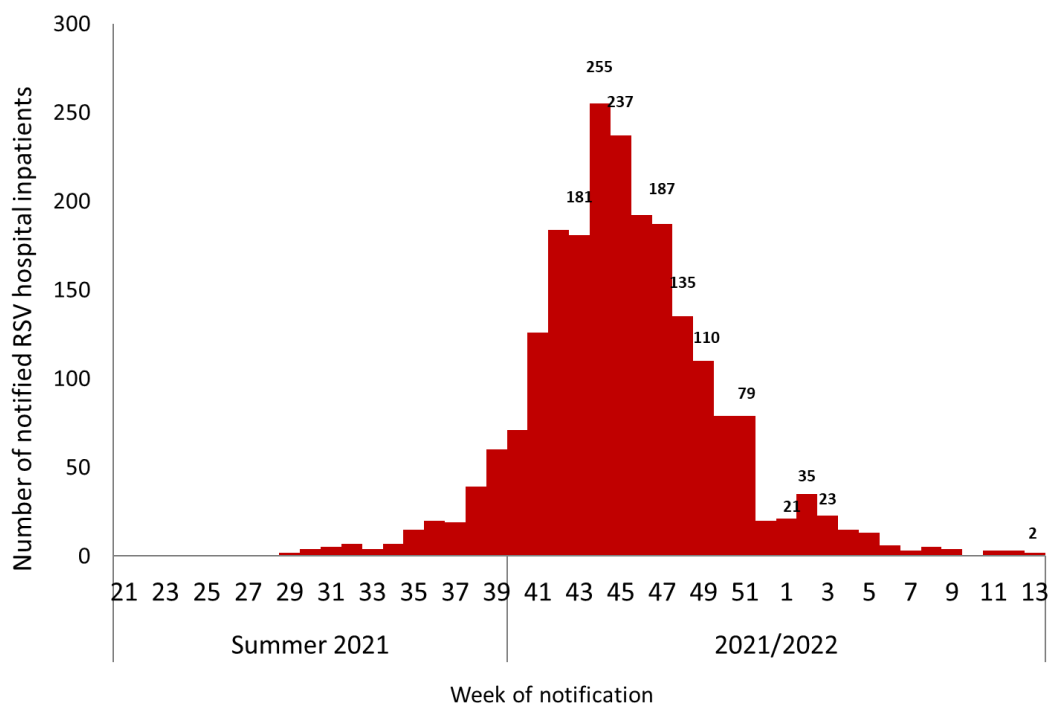


Figure 12: Number of notified RSV cases reported as hospital inpatients, by week of notification, summer 2021 and 2021/2022. *Source: Ireland's Computerised Infectious Disease Reporting System.*

6. Influenza Hospitalisations

- During week 13 2022, 48 laboratory confirmed influenza A notified cases were reported as hospital inpatients - seven influenza A(H3) and 41 influenza A (not subtyped). Of these 48 hospital inpatients, the median age is 59 years (interquartile range 20-74 years), 22 cases were aged ≥ 65 years of age. During week 13 2022, confirmed influenza hospitalised cases have been notified from HSE-East (n=10), - Southeast (n=1), -Midlands (n=9), -Northwest (n=6), -West (n=4) - Northeast (n=7) -Midwest (n=7) and HSE-South (n=4).
- During weeks 40 2021 - 13 2022, 358 laboratory confirmed influenza cases reported as hospital inpatients were notified: 81 A(H3), 275 influenza A (not subtyped), two influenza B cases.

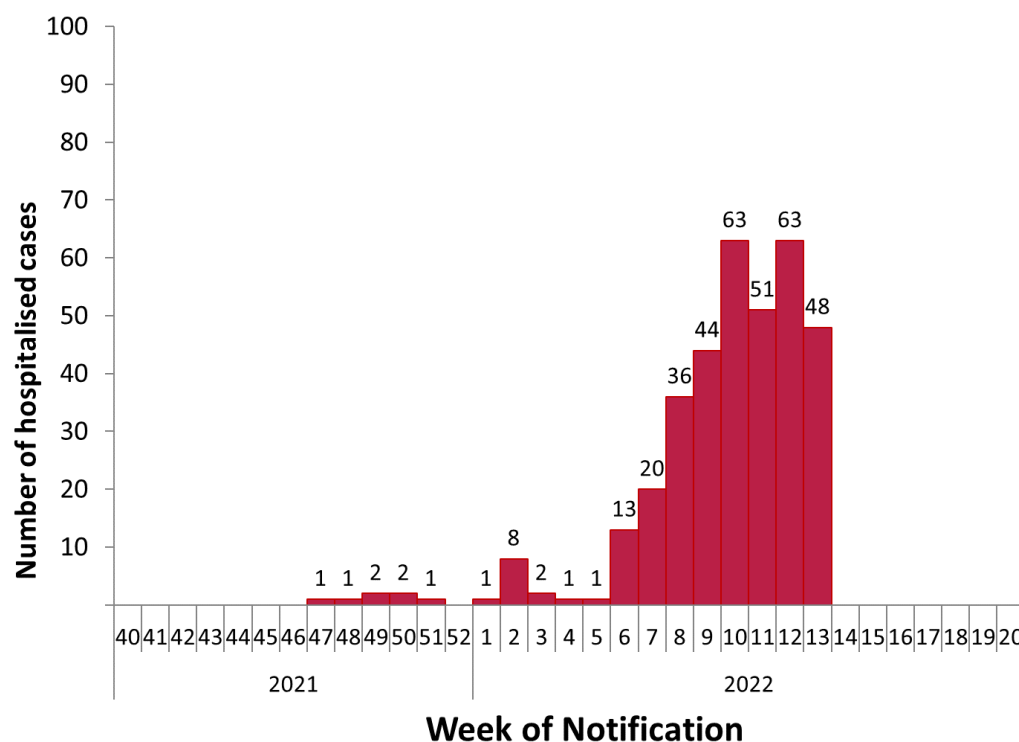


Figure 13: Number of notified laboratory confirmed influenza cases reported as hospital inpatients, by week of notification 2021/2022. *Source: Ireland's Computerised Infectious Disease Reporting System*

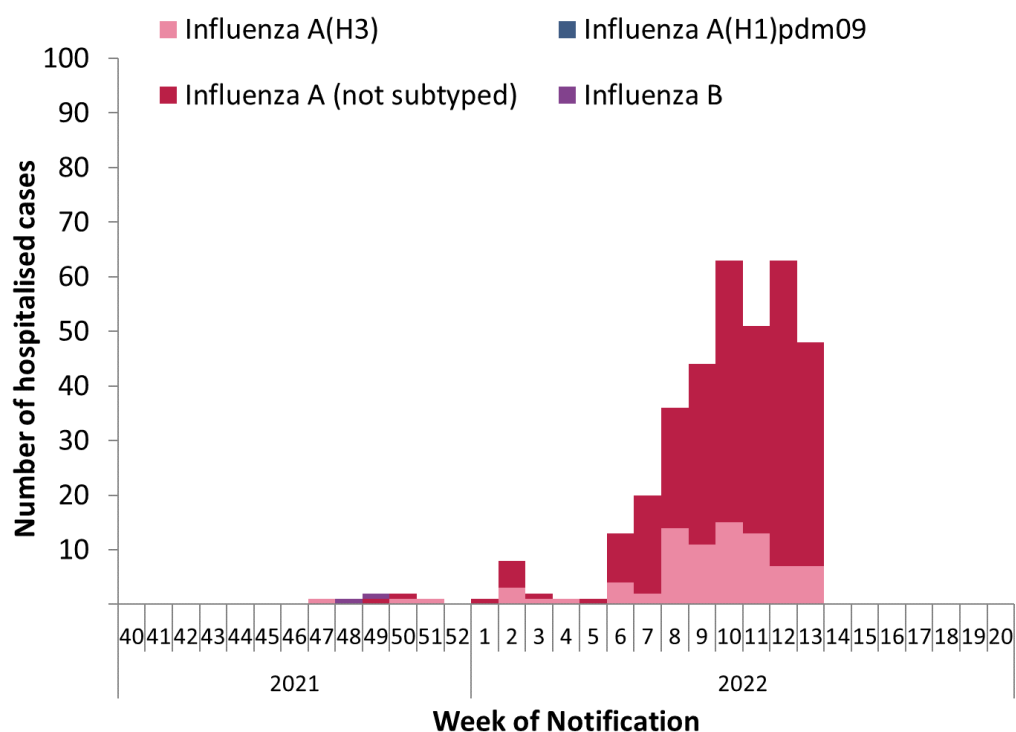


Figure 14: Number of notified laboratory confirmed influenza cases, reported as hospital inpatients, by influenza type/subtype and week of notification, 2021/2022 season *Source: Ireland's Computerised Infectious Disease Reporting System*

7. Critical Care Surveillance

The Intensive Care Society of Ireland (ICSI) and the HSE Critical Care Programme are continuing with the enhanced surveillance system set up during the 2009 pandemic, on all critical care patients with confirmed influenza. HPSC processes and reports on this information on behalf of the regional Directors of Public Health/Medical Officers of Health.

- During week 13 2022, no laboratory confirmed influenza cases were admitted to critical care units and reported to HPSC.
- During the 2021/2022 influenza season to date (week 40 2021 - week 13 2022), nine laboratory confirmed influenza A - 4 A(H3) and 5 A (not subtyped) - cases were admitted to critical care units and reported to HPSC (Table 6).

Table 6: Number (and age specific rate per 100,000 population) of laboratory confirmed notified influenza hospitalised and critical care cases, weeks 40 2021-13 2022. *Source: Ireland's Computerised infectious Disease Reporting System.*

Age (years)	Hospitalised		Admitted to ICU	
	Number	Age specific rate per 100,000 pop.	Number	Age specific rate per 100,000 pop.
<1	7	11.2	0	0.0
1-4	32	11.9	0	0.0
5-14	14	2.1	0	0.0
15-24	56	9.7	1	0.2
25-34	30	4.5	1	0.2
35-44	18	2.7	1	0.1
45-54	12	1.9	0	0.0
55-64	27	5.3	3	0.6
≥65	162	25.4	3	0.5
Unknown	0	-	0	-
Total	358	7.5	9	0.2

8. Severe Acute Respiratory Infection (SARI) surveillance

Severe Acute Respiratory Infection (SARI) surveillance was implemented in one tertiary care adult hospital; St. Vincent's University Hospital, Dublin (SVUH) on the 5th of July 2021. SARI cases are identified from new admissions (aged ≥15 years) through the SVUH Emergency Department. The current SARI ECDC case definition used is defined as a hospitalised person (hospitalised for at least 24 hours) with acute respiratory infection, with at least one of the following symptoms: cough, fever, shortness of breath OR sudden onset of anosmia, ageusia or dysgeusia with onset of symptoms within 14 days prior to hospital admission. SARI patients are tested for SARS-CoV-2, influenza and RSV.

- During week 13 2022, 28 SARI cases were admitted to the SARI hospital site, corresponding to an incidence rate per emergency hospitalisation of 110.7/1,000; an increase compared to 73.6/1,000 during week 12 2022.
- The SARI incidence rate per hospital catchment population was 9.2/100,000 population during week 13 2022, an increase compared to 6.2/100,00 in week 12 2022.
- SARI SARS-CoV-2 positivity was 50% (13/26 tested) during week 13 2022, compared to 36.8% (7/19) during week 12 2022.
- Two SARI cases tested positive for influenza A, during week 13 2022, corresponding to influenza positivity of 9.1% (2/22 tested), compared to 18.8% (3/16 tested) during week 12 2022.
- No SARI cases tested positive for RSV during weeks 12 and 13 2022.

9. Mortality Surveillance

Influenza deaths include all deaths where influenza is reported as the primary/main cause of death by the physician or if influenza is listed anywhere on the death certificate as the cause of death. HPSC receives daily mortality data from the General Register Office (GRO) on all deaths from all causes registered in Ireland. These data have been used to monitor excess all-cause and influenza and pneumonia deaths as part of the influenza surveillance system and the European Mortality Monitoring Project. These data are provisional due to the time delay in deaths' registration in Ireland. <http://www.euromomo.eu/>

- No deaths in notified influenza cases were reported to HPSC during week 13 2022. During the 2021/2022 season (weeks 40 2021- 13 2022), six deaths in notified influenza cases were reported to HPSC: 2 A(H3) and 4 A (not subtyped).
- No excess all-cause mortality was reported during week 12 2022, after correcting data for reporting delays with the standardised EuroMOMO algorithm. Due to delays in death registrations in Ireland, excess mortality data included in this report are reported with a one-week lag time.

10. Outbreak Surveillance

COVID-19 outbreaks are not included in this report; surveillance data on COVID-19 outbreaks are detailed on the HPSC website. <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/surveillance/>

- One influenza A (not subtyped) outbreak in HSE-Northwest and one acute respiratory infection (ARI – SARS-CoV-2 negative) outbreak in HSE-Midlands, were notified to HPSC during week 13 2022; both outbreaks were in nursing homes.
- During the 2021/2022 influenza season, 18 laboratory confirmed influenza outbreaks were notified: seven hospital outbreaks, six nursing home outbreaks, two family outbreaks, two at other healthcare service and one outbreak associated with a social gathering.
- For the 2021/2022 season to date (weeks 40 2021- 13 2022), 18 influenza outbreaks, five RSV and 13 ARI (SARS-CoV-2 negative) outbreaks were notified to HPSC. Of the 13 ARI outbreaks, two were associated with rhinovirus/enterovirus, four with seasonal coronavirus (OC43), one with human metapneumovirus and six with no pathogen identified.

11. Influenza Vaccinations

From 01/09/2021 up to the week ending 20/03/2022, seasonal influenza vaccination uptake for those aged 2-17 years was 16.3% (n=176,769/1,081,232) and 74.3% (n=552,044/743,087) for those aged ≥65 years. Data were provided by GPs, Pharmacists and PCRS staff.

12. International Summary

In the European region, during week 12 2022 (week ending 27/03/2022), widespread influenza activity was reported in 14 of 39 countries. The percentage of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms that tested positive for an influenza virus have remained at similar levels, around 26%, for the last three weeks. Countries, mostly in the western-central part of the Region, reported seasonal influenza activity above 50% positivity in sentinel primary care: Serbia (69%), Netherlands (67%), Denmark (63%), Slovenia (62%), France (58%), Belgium (57%), Hungary (57%) and Luxembourg (54%). Both influenza type A and type B viruses were detected with A(H3) viruses being dominant across all monitoring systems. A(H3) viruses were most frequently detected in patients hospitalised with confirmed influenza virus infection. <https://flunewseurope.org/>

The latest available WHO influenza report was published on 4 April 2022, based on data up to 20 March 2022. Globally, influenza activity remained low in comparison with pre-COVID years, but activity has increased again since February 2022, after an initial decrease in January 2022. In the temperate zones of the northern hemisphere, influenza activity increased or remained stable with detections of mainly influenza A(H3N2) viruses and B/Victoria lineage viruses reported. In North America, influenza activity increased in recent weeks but remained lower than pre COVID-19 pandemic levels at this time of the year and was predominantly due to influenza A viruses, with A(H3N2) predominant among the subtyped viruses. In Central Asia, no influenza detections were reported. In East Asia, influenza activity with mainly influenza B/Victoria lineage detections appeared to decrease in China. Elsewhere, influenza illness indicators and activity remained low. In Northern Africa, influenza detections of influenza A(H3N2) continued to be reported in Tunisia. In Western Asia, influenza activity was low across reporting countries. In the Caribbean and Central American countries, low influenza activity was reported with influenza A(H3N2) predominant. In tropical South America, low influenza activity was reported with influenza A(H3N2) predominant.

<https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update>

- Further information on influenza is available on the following websites:

Europe – ECDC	http://ecdc.europa.eu/
Public Health England	https://www.gov.uk/government/collections/weekly-national-flu-reports
United States CDC	http://www.cdc.gov/flu/weekly/fluactivitysurv.htm

Public Health Agency of Canada <http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>

- Influenza case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/influenza/casedefinitions/>
- COVID-19 case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>
- Avian influenza overview May – August 2020 <https://www.ecdc.europa.eu/en/publications-data/avian-influenza-overview-may-august-2020>
- Avian influenza: EU on alert for new outbreaks <https://www.ecdc.europa.eu/en/news-events/avian-influenza-eu-alert-new-outbreaks>
- Information on COVID-19 in Ireland is available on the HPSC website <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/>
- The WHO categorised COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:
 - WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
 - ECDC website: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>

13. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommend that quadrivalent egg-based vaccines for use in the **2021/2022** northern hemisphere influenza season contain the following:

an A/Victoria/2570/2019 (H1N1)pdm09-like virus;

an A/Cambodia/e0826360/2020 (H3N2)-like virus;

a B/Washington/02/2019 (B/Victoria lineage)-like virus;

a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus

<https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations>

The WHO vaccine strain selection committee recommend that quadrivalent egg-based vaccines for use in the **2022/2023** northern hemisphere influenza season contain the following:

an A/Victoria/2570/2019 (H1N1)pdm09-like virus;

an A/Darwin/9/2021 (H3N2)-like virus;

a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and

a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

<https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations>

Further information on influenza in Ireland is available at www.hpsc.ie

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